

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A tire molding machine ~~comprising~~ comprising:

~~a pair of bead core supporting devices for supporting~~ configured to support respective bead rings arranged on a radially outer side of a carcass band and axially spaced by a predetermined distance from each ~~other~~,other; and

~~a molding drum including a bead lock section for section~~ configured to radially expanding expand those portions of the carcass band, ~~which that~~ are situated on a radially inner side of the bead cores so as to urge the carcass band against the bead cores, ~~said tire molding machine being so designed that at least one of the bead cores has having~~ a center axis with a controllable inclination angle, wherein:

~~at least one of said the bead core supporting devices, which that is capable of holding~~ configured to hold the bead core to have a center axis with a controllable inclination angle, the at least one of the bead cores, ~~comprises~~ comprises:

~~an annular upright plate, plate;~~

~~a bead holder ring secured to the annular upright plate, plate;~~ and

~~a bead holder ring posture control means for controlling portion~~ configured to control an inclination angle of a center axis of the bead holder ring relative to the annular upright plate, ~~within an angular range including zero degree~~, wherein ~~said the~~ bead holder ring ~~serves to hold~~ is configured to hold the bead core in parallel with a surface of the ~~ring~~, the bead holder ring posture control portion is configured to control the inclination angle of the center axis of the bead holder ring in two different directions, the bead holder ring posture control portion comprising:

spherical bearings arranged at not less than two locations on the bead holder ring, linear motion shafts each extending in a direction perpendicular to the annular upright plate and having a tip end that is pivotally connected to the bead holder ring in omni-directional manner by the spherical bearing; and

shaft moving portion configured to move the linear motion shafts to desired positions in an axial direction of the annular upright plate.

2. (Canceled)
3. (Canceled)
4. (Currently Amended) The tire molding machine according to Claim 1, A tire molding machine comprising:

a pair of bead core supporting devices configured to support respective bead rings arranged on a radially outer side of a carcass band and axially spaced by a predetermined distance from each other; and

a molding drum including a bead lock section configured to radially expand those portions of the carcass band that are situated on a radially inner side of the bead cores so as to urge the carcass band against the bead cores, at least one of the bead cores having a center axis with a controllable inclination angle, wherein:

at least one of the bead core supporting devices, that is configured to hold the at least one of the bead cores, comprises:

an annular upright plate;

a bead holder ring secured to the annular upright plate; and

a bead holder ring posture control portion configured to control an inclination angle of a center axis of the bead holder ring relative to the annular upright plate, wherein the bead holder ring is configured to hold the bead core in parallel with a surface of

the ring wherein said the bead holder ring posture control means portion comprises
comprising:

spherical bearings arranged at not less than two locations on the
bead holder ring, linear motion shafts each extending in a direction perpendicular to the
annular upright plate and having a tip end which that is pivotally connected to the bead holder
ring in omni-directional manner by the spherical bearing, and bearing; and

shaft moving means portion for moving configured to move the
linear motion shafts to desired positions in an axial direction of the annular upright plate.

5. (Currently Amended) The tire molding machine according to Claim 4,
wherein said the linear motion shaft comprises a ball screw rod engaged with a female screw
in the annular upright plate, said the shaft moving means portion comprises a servomotor
with a reduction means portion, for rotating configured to rotate the ball screw rod directly or
indirectly through a gear mechanism, and said the annular upright plate is axially slidably
provided with a ball spline or a support shaft, said the ball spline or support shaft having a tip
end which that is pivotally connected to the bead holder ring in omni-directional manner, by a
spherical bearing provided on the bead holder ring.

6. (Currently Amended) The tire molding machine according to Claim 1,
wherein said the bead core supporting device is movable in an axial the axial direction of the
molding drum.

7. (Canceled)

8. (Currently Amended) The tire molding machine according to Claim 3, A tire
molding machine comprising:

a pair of bead core supporting devices configured to support respective bead
rings arranged on a radially outer side of a carcass band and axially spaced by a
predetermined distance from each other; and

a molding drum including a bead lock section configured to radially expand those portions of the carcass band that are situated on a radially inner side of the bead cores so as to urge the carcass band against the bead cores, at least one of the bead cores having a center axis with a controllable inclination angle, wherein:

at least one of the bead core supporting devices, that is configured to hold the at least one of the bead cores, comprises:

an annular upright plate;

a bead holder ring secured to the annular upright plate; and

a bead holder ring posture control portion configured to control an inclination angle of a center axis of the bead holder ring relative to the annular upright plate, wherein the bead holder ring is configured to hold the bead core in parallel with a surface of the ring, both of the bead core supporting devices comprise respective bead holder ring posture control portion, the bead holder ring posture control portion each configured to control the inclination angle of the center axis of the bead holder ring in a single direction, the angular control directions being different from each other among the respective bead core holder rings, wherein, said the bead holder ring posture control means portion comprises comprising:

spherical bearings arranged at not less than two locations on the bead holder ring, linear motion shafts each extending in a direction perpendicular to the annular upright plate and having a tip end which that is pivotally connected to the bead holder ring in omni-directional manner by the spherical bearing, and; and

shaft moving means portion for moving configured to move the linear motion shafts to desired positions in an axial direction of the annular upright plate.

9. (Currently Amended) The tire molding machine according to Claim 7Claim 1, wherein said the linear motion shaft comprises a ball screw rod engaged with a female screw

in the annular upright plate, said that shaft moving means portion comprises a servomotor with a reduction means, for rotating portion configured to rotate the ball screw rod directly or indirectly through a gear mechanism, and said the annular upright plate is axially slidably provided with a ball spline or a support shaft, said the ball spline or support shaft having a tip end which that is pivotally connected to the bead holder ring in omni-directional manner, by a spherical bearing provided on the bead holder ring.

10. (Currently Amended) The tire molding machine according to Claim 8, wherein said the linear motion shaft comprises a ball screw rod engaged with a female screw in the annular upright plate, said the shaft moving means portion comprises a servomotor with a reduction means, for portion configured to rotating rotate the ball screw rod directly or indirectly through a gear mechanism, and said the annular upright plate is axially slidably provided with a ball spline or a support shaft, said the ball spline or support shaft having a tip end which that is pivotally connected to the bead holder ring in omni-directional manner, by a spherical bearing provided on the bead holder ring.

11. (Currently Amended) The tire molding machine according to Claim 2Claim 1, wherein said the bead core supporting device is movable in an axialthe axial direction of the molding drum.

12. (Currently Amended) The tire molding machine according to Claim 3Claim 8, wherein said the bead core supporting device is movableconfigured to move in an axialthe axial direction of the molding drum.

13. (Currently Amended) The tire molding machine according to Claim 4, wherein said the bead core supporting device is movableconfigured to move in an axialthe axial direction of the molding drum.

14. (Currently Amended) The tire molding machine according to Claim 5, wherein ~~said the~~ bead core supporting device is ~~movable~~ configured to move in an axial ~~the~~ axial direction of the molding drum.

15. (Currently Amended) The tire molding machine according to ~~Claim 7~~Claim 1, wherein ~~said the~~ bead core supporting device is movable in ~~an axial~~ the axial direction of the molding drum.

16. (Currently Amended) The tire molding machine according to Claim 8, wherein ~~said the~~ bead core supporting device is movable in ~~an axial~~ the axial direction of the molding drum.

17. (Currently Amended) The tire molding machine according to Claim 9, wherein ~~said the~~ bead core supporting device is movable in ~~an axial~~ the axial direction of the molding drum.

18. (Currently Amended) The tire molding machine according to Claim 10, wherein ~~said the~~ bead core supporting device is movable in ~~an axial~~ the axial direction of the molding drum.